Updated - 8/9/04 sc

Pending claims.
~~1-25, 27.~~
1-10, 13-15, 23-25 & 27

Exhibit 1

Claims on Appeal

1. A method for producing a conditionally-immortalized human mesencephalon neural progenitor cell, comprising:

(a) plating human mesencephalon cells on a first surface and in first growth medium that permits proliferation;

(b) transfecting said progenitor cells with DNA encoding a selectable marker and an externally regulatable growth-promoting protein; and

* See Examiner's Amendment

(c) selecting an adherent monolayer of the transfected cells on a second surface and in a second serum-free growth medium that permits attachment and proliferation, wherein the second serum-free growth medium comprises FGF-2, EGF and PDGF, and therefrom producing a conditionally-immortalized human mesencephalon cells in which the growth-promoting protein is regulated by an external factor, such that suppression of the growth promoting protein results in differentiation of the cell into a neuron.

AMENDED

2. The method of claim 1 wherein the first and second surfaces are independently selected from the group consisting of substrates comprising one or more of a polyamino acid, fibronectin, laminin or tissue culture plastic.

3. The method of claim 1 wherein the growth-promoting gene is an oncogene.

4. The method of claim 3 wherein the oncogene is v-myc.

5. The method of claim 1 wherein expression of the growth-promoting gene is inhibited by tetracycline.

6. A conditionally-immortalized human mesencephalon neural progenitor cell capable of differentiation into neurons, wherein the cell is transfected with DNA encoding a growth-promoting protein that is regulated by an external factor, such that suppression of the growth-promoting protein results in differentiation of the cell into a neuron, and wherein the cell is polygonal and grows as an adherent monolayer.

* See Examiner's Amendment

AMENDED

7. A conditionally-immortalized human mesencephalon neural precursor cell according to claim 6, wherein the cell is capable of differentiation into dopaminergic neurons.

8. A conditionally-immortalized human mesencephalon neural precursor cell according to claim 6, wherein the cell is capable of differentiation into GABA-ergic neurons.

9. A method for producing a neuron, comprising culturing a cell produced according to claim 1 in the presence of at least one differentiating agent under conditions that inhibit expression of the growth-promoting gene.

10. A method according to claim 9, wherein the cell is cultured in medium comprising tetracycline.

13. A neuron produced according to the method of claim 9.

14. A dopaminergic neuron produced according to the method of claim 9.

15. A GABA-ergic neuron produced according to the method of claim 9.

23. A conditionally-immortalized human mesencephalon neural precursor cell produced according to the method of claim 1.

24. A cell according to claim 23, wherein the cell is present within a clonal cell line.

25. The method of claim 9, wherein the differentiating agent comprises the combination of forskolin, GDNF and CNTF.

* See Examiner's Amendment

26. The method of claim 9, wherein the differentiating agent comprises the combination of forskolin, GDNF, CNTF, IGF-1 and BDNF. CANCELED

27. The method of claim 9 wherein said differentiating agent comprises GDNF.